

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

Claims 1-12 (Cancelled)

13. (Currently Amended) A sortation conveyor configured to selectively divert articles carried by said sortation conveyor traveling in a longitudinal direction laterally at one of a plurality of divert locations, said sortation conveyor having a lateral direction transverse to said longitudinal direction, said sortation conveyor comprising:
- a. a plurality of switches associated with said plurality of divert locations;
 - b. a plurality of divert guide paths, each respective divert guide path of said plurality of divert guide paths [one each] disposed downstream of a respective associated one of said plurality of switches; [and]
 - c. a plurality of pushers, each pusher of said plurality of pushers configured to be selectively diverted by any of said switches to travel along said associated divert guide path so as to engage and divert a selected one of said articles; and
 - d. each said divert guide path comprising an arcuate portion having an entrance, said entrance being disposed at a divert angle of less than 20°, said divert guide path configured to guide pushers traveling along said divert guide path to distribute force necessary to laterally accelerate said selected one of said articles being diverted toward said divert location over a longitudinal and lateral distance without an abrupt initial force being applied to said selected one of said articles by said pushers so as to maintain control of said selected one of said articles while said selected one of said articles is being diverted.
14. (Original) The sortation conveyor of claim 13, wherein said entrance is disposed at a divert angle of less than 19°.

15. (Original) The sortation conveyor of claim 13, wherein said entrance is disposed at a divert angle of less than 17° .

16. (Original) The sortation conveyor of claim 13, wherein said entrance is disposed at a divert angle of less than 15° .

17. (Original) The sortation conveyor of claim 13, wherein said entrance is disposed at a divert angle of less than 10° .

18. (Original) The sortation conveyor of claim 13, wherein said entrance is disposed at a divert angle of less than 5° .

19. (Original) The sortation conveyor of claim 13, wherein said entrance is disposed at a divert angle of less than 3° .

20. (Original) The sortation conveyor of claim 13-19, wherein said entrance is disposed immediately downstream of its associated switch.

21. (Original) The sortation conveyor of claim 20, wherein said divert guide path comprises a linear portion disposed downstream of said arcuate portion.

22. (Original) The sortation conveyor of claim 13-19, wherein said arcuate portion comprises a plurality of adjacent linear segments disposed non-colinear to each other.

23. (Original) The sortation conveyor of claim 13-19, wherein said divert guide path includes a linear section disposed between said arcuate portion and said associated switch.

24. (Original) The sortation conveyor of claim 23, wherein said divert guide path comprises a linear portion disposed downstream of said arcuate portion.

25. (Original) The sortation conveyor of claim 23, wherein said linear section is disposed at a divert angle of less than 20°.

26. (Original) The sortation conveyor of claim 25, wherein said linear section is disposed at a divert angle of less than 19°.

27. (Original) The sortation conveyor of claim 25, wherein said linear section is disposed at a divert angle of less than 17°.

28. (Original) The sortation conveyor of claim 25, wherein said linear section is disposed at a divert angle of less than 15°.

29. (Original) The sortation conveyor of claim 25, wherein said linear section is disposed at a divert angle of less than 10°.

30. (Original) The sortation conveyor of claim 25, wherein said linear section is disposed at a divert angle of less than 5°.

31. (Original) The sortation conveyor of claim 25, wherein said linear section is disposed at a divert angle of less than 3°.

32. (Original) The sortation conveyor of claim 23, wherein said divert angle of said linear section is approximately equal to said divert angle of said entrance.

33. (Original) The sortation conveyor of claim 13-19, wherein said divert guide path includes a final divert portion which is disposed at a final divert angle, and wherein said arcuate portion includes an exit, said exit being disposed at a divert angle which is less than said final divert angle.

34. (Original) The sortation conveyor of claim 13-19, wherein each said divert guide path includes a respective final divert portion which is disposed at a final divert angle, and

wherein said arcuate portion includes an exit, said exit being disposed at a divert angle which is greater than said final divert angle.

35. (Original) The sortation conveyor of claim 13-19, wherein each said divert guide path includes a respective final divert portion which is disposed at a final divert angle, and wherein said arcuate portion includes an exit, said exit being disposed at a divert angle which is equal to said final divert angle.

36. (Original) The sortation conveyor of claim 34, wherein each said one divert guide path includes a respective final divert portion which is disposed at a final divert angle, and wherein said exit is disposed at a divert angle approximately equal to said final divert angle.

37. (Currently Amended) A sortation conveyor for selectively diverting articles carried by said sortation conveyor traveling in a longitudinal direction at a divert location, said sortation conveyor having a lateral direction transverse to said longitudinal direction, said sortation conveyor comprising:

- a. an endless conveying surface configured for movement in a downstream longitudinal direction;
- b. a switch associated with said divert location;
- c. a divert guide path disposed downstream of said switch, said divert guide path comprising a plurality of divert angles;
- d. a plurality of pushers carried by said endless conveying surface and configured to travel therewith, each pusher of said plurality of pushers configured to be selectively diverted by said switch to travel along said divert guide path so as to engage and divert a selected one of said articles carried by said endless conveying surface; and
- e. an initial contact zone in which one or more pushers of said plurality of pushers are selectively diverted by said switch to travel along said divert guide path to contact said selected one of said articles ~~carried by said endless conveying surface~~, said divert guide path including a initial contact zone portion disposed within said initial contact zone, said initial contact zone portion comprising a first

portion which is disposed at a divert angle of less than 20°, said divert guide path configured to guide pushers traveling along said divert guide path to distribute force necessary to laterally accelerate said selected one of said articles being diverted toward said divert location over a longitudinal and lateral distance without an abrupt initial force being applied to said selected one of said articles so as to maintain control of said selected one of said articles while said selected one of said articles is being diverted.

38. (Original) The sortation conveyor of claim 37, wherein said first portion is disposed at a divert angle of less than 19°.

39. (Original) The sortation conveyor of claim 37, wherein said first portion is disposed at a divert angle of less than 17°.

40. (Original) The sortation conveyor of claim 37, wherein said first portion is disposed at a divert angle of less than 15°.

41. (Original) The sortation conveyor of claim 37, wherein said first portion is disposed at a divert angle of less than 10°.

42. (Original) The sortation conveyor of claim 37, wherein said first portion is disposed at a divert angle of less than 5°.

43. (Original) The sortation conveyor of claim 37, wherein said first portion is disposed at a divert angle of less than 3°.

44. (Original) The sortation conveyor of any of claims 37-43, wherein said initial contact zone portion comprises a linear portion.

45. (Original) The sortation conveyor of claim 44, wherein all of said initial contact zone portion is linear.

46. (Previously Amended) The sortation conveyor of any of claims 37-43, wherein said initial contact zone portion comprises a non-linear portion.

47. (Original) The sortation conveyor of claim 46, wherein all of said initial contact zone is non-linear.

48. (Original) The sortation conveyor of claim 46, wherein said non-linear portion is arcuate.

49. (Original) The sortation conveyor of claim 48, wherein said non-linear portion comprises a plurality of adjacent linear segments disposed non-linear to each other.

50. (Original) The sortation conveyor of claim 48, wherein all of said initial contact zone portion is non-linear.

51. (Original) The sortation conveyor of claim 48, wherein said non-linear portion is parabolic.

52. (Original) The sortation conveyor of claim 48, wherein said non-linear portion has a plurality of radii, at least one of said radii being different.

53. (Original) The sortation conveyor of claim 46, wherein said initial contact zone portion comprises a linear portion, said non-linear portion being disposed downstream of said linear portion.

Claims 54 - 173 (Cancelled).

174. (Currently Amended) A sortation conveyor configured to selectively divert articles at a divert location, said sortation conveyor comprising:

- a. a plurality of switches associated with said divert location, one of said switches comprising a last switch of said plurality of said switches; [and]
- b. a divert guide path associated with said last switch, said divert guide path comprising an arcuate portion having an entrance, said entrance being disposed at a divert angle of less than 20°,
- c. a plurality of pushers, each pusher of said plurality of pushers configured to be selectively diverted so as to engage and divert a selected one of said articles; and
- d. said arcuate portion configured to guide pushers traveling along said divert guide path to distribute force necessary to laterally accelerate said selected one of said articles being diverted toward said divert location over a longitudinal and lateral distance without an abrupt initial force being applied to said selected one of said articles so as to maintain control of said selected one of said articles while said selected one of said articles is being diverted.

175. (Previously Presented) A sortation conveyor configured to selectively divert articles at one of a plurality of divert locations, said sortation conveyor comprising:

- a. a plurality of switches associated with said plurality of divert locations;
- b. a plurality of divert guide paths, one each disposed downstream of a respective associated one of said plurality of switches; and
- c. each said divert guide path comprising an arcuate portion having an entrance, said entrance being disposed at a divert angle of less than 20°, said divert guide path including a final divert portion disposed at a final divert angle, and wherein said arcuate portion includes an exit, said exit being disposed at a divert angle which does not equal said final divert angle.

176. (Previously Presented) A sortation conveyor for selectively diverting articles at a divert location, said sortation conveyor comprising:

- a. an endless conveying surface configured for movement in a downstream longitudinal direction;
- b. a switch associated with said divert location;

- c. a divert guide path disposed downstream of said switch, said divert guide path comprising a plurality of divert angles;
- d. a plurality of pushers carried by said endless conveying surface and configured to travel therewith, each of said plurality of pushers configured to be selectively diverted by said switch to travel along said divert guide path so as to engage and divert a selected one of said articles; and
- e. an initial contact zone comprising a non-linear portion including a ~~plurality~~ plurality of adjacent linear segments disposed non-linear to each other, said divert guide path including a initial contact zone portion disposed within said initial contact zone, said initial contact zone portion comprising a first portion which is disposed at a divert angle of less than 20°.